

# State of Utah Metadata Best Practices Guide

for use with Utah Government Publications Online (<http://publications.utah.gov>)

Draft v. 1.3.9 based on *State of Utah Application Profile and Metadata Best Practices*, v. 0.3.9.9.4

Dublin Core Element	Element Label	Qualified Name	Definition	Obligation for Digital Library *	Refinements / Notes	Recommended Schemes
title	Title	dc.title	The name given to the resource by the creator or publisher.	M	The qualifier refinement <i>title.alternative</i> should be used if the resource is also known under a different title or has a translated title. <i>Title</i> is required for OAI harvesting by the Mountain West Digital Library.	None
	Alternative Title	dcterms:alternative	Any form of the title used as a substitute or alternative to the formal title of the resource.	RA	A refinement of <i>title</i> . This can include abbreviations as well as translations.	None
creator	Creator	dc.creator	The full name of the person (or governmental agency or organization if it differs from the publisher) primarily responsible for creating the intellectual content of the resource.	RA	No refinements. If the <i>Creator</i> is the same as the <i>Publisher</i> , omit it. This element may, if necessary, be repeated. Multiple values should be put into separate elements in order to eliminate confusion at the time of metadata harvesting. <i>Creator</i> is required for OAI harvesting by the Mountain West Digital Library.  <i>Contributor</i> should be used for listing the names of secondary governmental agencies, non-governmental agencies, personal authors, editors, translators, illustrators, cartographers, and others who contributed to the work.	utnaf (local) --- lcnaf

subject	Subject	dc.subject	A topic of the content of the publication, web page, or resource.	M	The <i>Subject</i> element can be used to allow for automated classification and to create classification nodes for the topical browsing of resources based on terms. Terms MUST be selected from controlled vocabularies. At least one subject should be taken from the <i>Library of Congress Subject Headings</i> (LCSH) controlled vocabulary. Use separate <i>Subject</i> element tags for terms from each particular thesaurus and classification scheme used. Multiple values should be put into separate elements in order to eliminate confusion at the time of metadata harvesting. Geographic terms should be recorded using the <i>Coverage dcterms:spatial (Place)</i> refinement, rather than using <i>Subject</i> to describe the spatial topic of the publication or resource. <i>Subject</i> is required for OAI harvesting by the Mountain West Digital Library.	dcterms:LCHS --- dcterms:MeSH dcterms:TGN dcterms:LIV
	Topic	dc.subject.keyword	The content of what the publication is “about” expressed in a locally controlled vocabulary of broad subject headings.	M	<i>Topic</i> is a <i>Subject</i> refinement that provides for both English and Spanish language faceted browsing of publications by topic in <i>Utah Government Publications Online</i> . The very broad <i>uttopic</i> controlled list is mapped to <i>dc.subject.keyword</i> is provide for subject facets.  Faceted browsing is provided in English for <i>agency</i> , <i>place</i> , and <i>year</i> , and in English and Spanish for <i>audience</i> , <i>collection</i> , <i>format</i> , <i>language</i> , <i>topic</i> , and <i>type</i> . Values are taken from controlled vocabularies maintained by the Utah State Library. This set of controlled vocabularies comprise the bulk of the <i>State of Utah Taxonomy</i> (UTT).	uttopic (local utt) uttopices (local utt)
description	Description	dc.description	A short narrative summation of the content and/or purpose of the publication or resource.	O	<i>Description</i> is required for OAI harvesting by the Mountain West Digital Library.	None
	Table of Contents	dcterms:tableOfContents	A list of subunits of the resource.	NR	Refinement of <i>Description</i> .	None
	Abstract	dcterms:abstract	A summary of the resource.	NR	Use of <i>Description</i> is preferred to use of this refinement.	None
publisher	Publisher	dc.publisher	The corporate name of the entity, usually a governmental agency, responsible for publishing the resource or making it available on the web.	M	Multiple values should be put into separate elements in order to eliminate confusion at the time of metadata harvesting.  Note: The place of publication is not provided for in Dublin Core.	utnaf (local) --- lcnaf

	<b>Agency</b>	dc.publisher	The governmental agency responsible for publishing the resource or making it available on web.	M	<i>Agency</i> is a colloquial name for the agency used to provide browse access with values taken from the <i>utagency</i> controlled list. (e.g. "Child and Family Services.") The purpose is to provide for faceted browsing by the name of the agency responsible for publishing the document.	utagency (local)
<b>contributor</b>	<b>Contributor</b>	dc.contributor	An agency or person responsible for making significant intellectual contributions to the content of the publication or resource, but whose contribution is secondary to the governmental entity specified in the <i>Creator</i> element.	RA	<i>Contributor</i> should be used for listing the names of secondary governmental agencies, non-governmental agencies, personal authors, editors, translators, illustrators, cartographers, and others who contributed to the work. In the case of agency contributors, use the Utah Name Authority File (utnaf) as the controlled vocabulary. Use the Library of Congress Name Authorities file (lcnaf) if the agency is not listed in the local file. Use separate <i>Contributor</i> elements to enter multiple contributors. Record the names of personal contributors according the format specified in LCNAF, and if not found in this name authority, then in the format of last name, first name, middle initial. Record entities responsible for digitizing an existing resource in the <i>Contributing Institution</i> element.	utnaf (local) --- lcnaf
<b>date</b>	<b>Date Published</b>	dc.terms:issued	Date of formal issuance (i.e., publication) of the resource. For a "web only" publication it is the date when first posted to the web. For a print document it is the date of publication.	M	<p>Dates refer to the publication itself; not to the content matter of the publication. Unqualified <i>dc.date</i> fields are not permitted. DCMI provides for several qualifiers. Only one, <i>dcterms:issued</i>, is mandatory for this application profile. Optional DCMI qualifiers are: <i>dcterms:created</i>, <i>dcterms:modified</i>, <i>dcterms:valid</i>, <i>dcterms:available</i>, <i>dcterms:dateCopyrighted</i>, <i>dcterms:dateAccepted</i>, and <i>dcterms:dateSubmitted</i>. The optional MODS qualifier is <i>dateCaptured</i>. Include other date information about the original resource in the <i>Coverage</i>, <i>Description</i>, or <i>Source</i> elements as appropriate. References to a period or time of the content should be described using <i>Coverage dcterms:temporal</i>. <i>Date</i> is required for OAI harvesting by the Mountain West Digital Library.</p> <p>A date may be a point in time or a period of time such as a date range. Dates should conform to the <i>W3C-DTF</i> profile of ISO 8601 and be in the form of YYYY-MM-DD, YYYY-MM, or YYYY. Span dates for serials and ongoing publications should conform to the scheme <i>dcterms:Period</i> and be in the form of YYYY – YYYY.</p> <p>Note: CDP uses <i>Date Digital</i> as the label for the Dublin Core element <i>dc.date</i>, however, the Dublin Core <i>dcterms:issued</i> refinement should be used in preference to an unqualified date.</p>	dcterms:W3CDTF dcterms:Period

<b>Date Created</b>	dc.terms:created	Date of creation of the resource.	NR	<p>This is date the resource (either analog or born-digital) was completed for its intended purpose regardless of when it was posted on the Web or formally published in print. It should be used when the date of the creation of the intellectual content (not the metadata) differs from the <i>Date Published</i>. For a born digital item, it is the date that the intellectual content was created in digital form. For a photograph, it is the date the photograph was taken; for a video, the date the videotape was released; for an audio file, the date that it was issued on disc or tape.</p> <p>A date may be a point in time or a period of time such as a date range. Dates should conform to the <i>W3C-DTF</i> scheme. Span dates, if needed, should conform to the scheme <i>dcterms:Period</i>. The element should not be repeated.</p> <p>Note: This Dublin Core <i>Date Created</i> refinement should be used in preference to the CDP local metadata element <i>Date Original</i> (i.e. creation or modification date for the original resource).</p>	dcterms:W3CDTF dcterms:Period
<b>Date Copyrighted</b>	dcterms:dateCopyrighted	Date of a statement of copyright.	NR	Only needed if the <i>Date Copyrighted</i> differs from the <i>Date Published</i> or <i>Date Created</i> .	dcterms:W3CDTF
<b>Date Available</b>	dcterms:available	Date (often a range) that the resource will become or did become available.	NR		dcterms:W3CDTF
<b>Date Modified</b>	dcterms:modified	Date that the resource was last changed.	M	For an existing online publication it is the most recent date of substantial editing or revision. Some systems such the one used for State Publications Digital Library automatically generate the values found in the <i>Date Modified</i> field. In the case of the Digital Library, <i>Date Modified</i> is the date when the object was added, replaced, or changed in the system.	dcterms:W3CDTF
<b>Date Valid</b>	dcterms:valid	The point or period of time that the publication or resource becomes valid or ceases to be valid.	NR		dcterms:W3CDTF
<b>Date Accepted</b>	dcterms:dateAccepted	Date of acceptance of the resource (e.g. thesis).	NR		dcterms:W3CDTF
<b>Date Submitted</b>	dcterms:dateSubmitted	Date of submission of the resource.	M	For the purposes of the State Publications Digital Library, <i>Date Submitted</i> is the date the publication was uploaded to the digital library. Date Submitted is used to generate lists of new publications and to generate monthly statistics on the growth of the collection.	dcterms:W3CDTF

	<b>Date Captured</b>	None (MODS dateCaptured)	Date that the resource was captured.	NR	This includes the date that a snapshot of the resource was taken (particularly for dynamic resources) if different from <i>Date Created</i> . For digitized resources this is the same date as <i>Date Digital</i> . It is a sub-element qualifier of <i>mods:originInfo</i> and <i>mods:publicationInfo</i> in the Library of Congress MODS schema. The DCMI Usage Board recommends using this element in a general way with Dublin Core principles that does not conflict with other DC terms.	dcterms:W3CDTF
<b>type</b>	<b>Type</b>	dc.type	The general functional category or genre related to the purpose of the content of the publication.	M	<p>Values are drawn from a locally controlled vocabulary of terms. These values provide for faceted browsing of publications based on <i>Type</i>.</p> <p>Avoid confusing <i>Type</i> with <i>Subject</i> (i.e. what the publication or resource is about) or with format genres such as "text," "image," or "sound." Use the <i>Format</i> element and its controlled vocabulary for digital media types. Use the <i>Format</i> <i>dcterms:medium</i> qualifier to describe the physical manifestation of the resource.</p> <p>Note: This element is used for the same purpose as the University of Utah IR local element <i>Publication Type</i>.</p>	uttype (local utt)
	<b>DCMI Type</b>	dc.type	The genre, functional category, or aggregation level of the publication or resource.	M	DCMI Type is not used for the State Publications Digital Library. It is required in the schema because <i>Type</i> is one the seven required metadata fields OAI harvested by the Mountain West Digital Library. For OAI harvested interoperability, create a separate <i>dc.type</i> element with the scheme <i>dcterms:DCMIType</i> with values selected from the DCMIType Vocabulary.	dcterms:DCMIType
<b>format</b>	<b>Format</b>	dc.format	The file type of the resource.	NR	<i>Format</i> uses the local controlled vocabulary <i>utformat</i> which consists of broad format categories for the purpose of providing faceted browse access. Refinements are <i>dcterms:extent</i> and <i>dcterms:medium</i> .	utformat (local utt)
	<b>Size</b>	dcterms:extent	The number of pages in a text document or the duration in minutes of an audio or video resource.	RA	DCMI defines <i>Extent</i> as the size in file bytes or duration in minutes of the resource. Because the Horizon Digital Library internally calculates and displays Size in file bytes, we recommend using <i>Extent</i> to display the number of pages in text documents such as a PDF publication or the duration of a resource such as a Webcast that is primarily a sound or video format.	None

	<b>Media Type</b>	dcterms:medium	The material or physical medium of the resource.	M	<p>Use Internet Media Type (IMT or MIME type) values. These define computer media formats according to the RFC2045 and RFC2046 protocol specifications. Only MIME types registered with the Internet Assigned Numbers Authority (IANA), <a href="http://www.iana.org/assignments/media-types/">http://www.iana.org/assignments/media-types/</a>, are valid.</p> <p>MIME types that are not yet on the IMT approved list, such as application/vnd.rn-realmedia, audio/vnd.rn-realaudio, video/vnd.rn-realvideo, application/x-shockwave-flash, or audio/x-mp3 need to be referenced from the local <i>utformat</i> scheme. Since new media types and applications are always emerging, if the resource format being described is not yet part of the MIME type list, follow the MIME convention by selecting a broad category of object format (audio, video, application, etc.) for the first part of the MIME type, then use the file name suffix usually attached to files of this format as a brief identifier for the second half of the MIME type.</p>	dcterms:IMT --- utformat (local utt)
<b>identifier</b>	<b>Identifier</b>	dc.identifier	A character string that clearly and uniquely identifies a digital publication or resource within the repository.	M	<p>The <i>Identifier</i> element ensures that individual digital objects can be accessed, managed, stored, recalled and used reliably. It unambiguously identifies an item within a repository and is used in OAI-PMH requests for extracting metadata from the item. The unique identifier maps to the object; it is not used for the identification of the metadata record.</p> <p>Metadata describing digital resources must contain a URL(s) that leads a user to the digital resource to meet the requirements of the OAI metadata harvesting protocol and the preservation description information required of the OAIS reference model. The <i>Identifier</i> must conform to the syntax of the Uniform Resource Identifier (URI) and include the protocol prefix (e.g. <a href="http://">http://</a> or <a href="https://">https://</a>) and the URI for each digital resource must resolve (i.e. be a URL or Uniform Resource Locator) to the resource. The URI scheme is the only DCMI approved scheme. It is important to note that a URL may not actually be the 'unambiguous identifier' for the resource as URLs often change. <i>Identifier</i> is required for OAI harvesting by the Mountain West Digital Library.</p> <p>Individual communities may develop community-specific URI schemes for coordinated use across repositories. A best practice to use some form of permanent URL (such as a PURL, a resolvable DOI, Handle System identifier, or Extensible Repository Resource Locator). This permanent URI for a digital resource should resolve (i.e. be a URL) to the resource. The State of Utah utilizes the OCLC PURL (Persistent Uniform Resource Locator) Service for</p>	dcterms:URI --- ISBN ISSN

providing persistent URNs for identifying the online locations of RDF schema within the directory at <http://purl.oclc.org/UT/>. The PURL service is a non-proprietary naming and resolution service using HTTP redirects.

If the digital identifier does not resolve to the digital resource, it is important to provide, in addition to the identifier, a URL (Uniform Resource Locator) which will direct a user to the resource.

In cases where no globally recognized standard identifier exists, a local identifier should be included in the metadata.

Multiple identifiers should be included if they will assist a service provider or an end-user in locating the resource described. But only one *dc:identifier* element should be included with an actionable identifier (i.e. a URL). The recommended best practice is to include identifiers from different Schemes in separate elements. If additional identifiers utilizing other schemes (e.g. DOI, ISBN, or ISSN) are used, create separate Identifier elements.

Secondary URLs to other versions of the document should be included in the *Relation* element. Identifiers for local library holdings such as State of Utah Classification (UTDoc) call numbers (mapped from MARC 086\$a) should be put into the Dublin Core Library Application Profile (DC-Lib) element from MODS known as *Location*.

Note: Some repository systems will automatically assign a unique identifying number to digital objects. ArchivalWare generates an *Identifier* that is the relative URI describing the location of the "document" on the file system, in relation to the collection's "Disk". It is stored in the form of \subdirectory\filename.extension in the database. To meet OAI requirements, the fully-qualified URI can be formed via a table relationship, which identifies the "Disk" the particular document was loaded to. The Disk essentially describes what can be thought of as the root directory of the collection, and can be viewed in the Admin interface in the "Disk" section, under the "Drive" column heading. Combining the Disk with the document's unique identifier produces the fully-qualified path to the document.

DSpace incorporates Handles. CONTENTdm 4 assigns unique identifiers to uploaded items that are

					a combination of a unique time and date stamp as well as the computer's machine name. OCLC Digital Archive assigns a unique number to each record after its ingest. In North Carolina, state documents are assigned a State Library created PURL as the identifier.	
<b>source</b>	<b>Source</b>	dc.source	A resource from which the present resource is derived.	NR	<i>Source</i> refers to a resource from which the page was derived. Most state government publications are "born digital" and derive from no pre-existing resource. In which case, the <i>Source</i> element is NOT used. Use the Relation <i>isFormatOf</i> refinement for digitized versions of analog resources instead of using <i>Source</i> . If used, the recommendation is to enter a reference to its Uniform Resource Identifier (URI) or if not online use a string conforming to a formal identification system.	dcterms:URI
<b>language</b>	<b>Language</b>	dc.language	A language of the resource or publication.	M	<i>Language</i> is used to provide browse access for finding all available publications in Spanish or other languages. Language codes come from a controlled vocabulary based on Internet RFC 3066 'Tags for the Identification of Languages' that replaces RFC 1766 and is a registered DCMI scheme defined by Dublin Core. RFC 3066 specifies a primary sub-tag, which is a two-letter code taken from ISO 639 part 1 or a three-letter code taken from ISO 639 part 2, followed optionally by a two-letter country code taken from ISO 3166. When a language in ISO 639 has both a two-letter and three-letter code, use the two-letter code; when it has only a three-letter code, use the three-letter code." The default value is "en". If the resource includes multiple languages use separate <i>Language</i> elements for each.	dcterms:RFC3066 dcterms:ISO639-2
<b>relation</b>	<b>Relation</b>	dc.relation	A related resource consisting of an identifier.	NR	Use a Uniform Resource Identifier (URI) or repository identifier for linking directly to the other resource rather than using human-readable text descriptions. <i>Dc.relation</i> allows the system to build "relationships" between documents and is one means, among several, for providing for version control.  Use one or more of the groups of refinements to explain the nature of the relationship between the described resource (i.e. the resource being described by the metadata record) and the related resource being referred to in the <i>Relation</i> element.	dcterms:URI



		dcterms:hasVersion dcterms:isVersionOf	One resource (by the same creator) is or has a version, edition, or adaptation of the other.	NR	Use <i>dcterms:hasVersion</i> to provide URLs to other versions of the document and to provide provenance preservation description information for digitized documents required of the OAIS reference model. Version control is important (1) so that users of government information will know that the version they are looking at is current or outdated; (2) for providing users with links to the most recent information; and (3) for providing users with notifications regarding new and outdated publications. Changes in version imply substantive changes in content rather than differences in format.	dcterms:URI
		dcterms:requires dcterms:isRequiredBy	One resource requires another resource for its functioning, delivery, or content and cannot be used without the related resource being present.	NR	Use <i>dcterms:requires</i> when the resource being described requires the use of software or hardware external to the resource itself.	dcterms:URI
		dcterms:hasFormat dcterms:isFormatOf	One resource is the same intellectual content or pre-existed the other, but is presented in another format.	NR	Use <i>dcterms:isFormatOf</i> for digitized versions of analog resources, and in other instances when the resource references alternative physical formats. This refinement is used to provide provenance preservation description information for digitized documents required of the OAIS reference model.	dcterms:URI
		dcterms:isReplacedBy dcterms:replaces	One resource supplants, displaces, supersedes, or is a substitute for another.	NR		dcterms:URI
		dcterms:isReferenced By dcterms:references	One resource cites, acknowledges, disputes or otherwise refers to another resource.	NR	This refinement can be used to provide contextual preservation description information supporting the OAIS reference model.	dcterms:URI
		dcterms:conformsTo	A reference to an established standard to which the resource conforms.	NR		dcterms:URI

	<b>Collection</b>	dcterms:isPartOf dcterms:hasPart	One resource or collection is a physical or logical part of another.	M	<p>DCMI defines a collection as an aggregation of resources. It can be described as a group or its parts can be described separately.</p> <p>Within the Horizon Digital Library we use <i>dcterms:isPartOf</i> as a browse facet for accessing broad collections within the State Publications Library. It is used for creating portal access to State Publications, Federal Publications, Forms or other such broad collections.</p> <p>It could also be used to browse and find publications within popular collections such as topographic maps, Auditor General reports, Utah Code, Utah Administrative Code, Online Public Health Publications, Tax Publications, etc.</p> <p>In the future we may use <i>dc.relation.IsPartOf</i> for mapping <i>Collection</i> metadata for associating a publication that is a physical or logical part of another set of publications.</p> <p>Select Collection names from the controlled vocabulary maintained by the Utah State Library.</p>	dcterms:URI utcollection (local utt)
coverage	<b>Coverage</b>	dc.coverage	The extent of time coverage, geographical scope of the resource, or the jurisdiction under which the resource is relevant.	NR	Do not use, in favor of the refinements.	
	<b>Decade</b>	dcterms:temporal	The extent of time coverage of the resource.	NR	<p>The <i>Decade</i> metadata element references the decade of publication and is not related to the content of the publication. This element uses the Decade controlled vocabulary to provide browse access to publications by date.</p> <p>When applicable, enter a value from the Decade controlled vocabulary for the decade for the year of publication as used in <i>dcterms:issued</i>. This maps to the <i>Coverage</i> refinement <i>dcterms:temporal</i> and is used to browse facets and find publications by decade of publication.</p>	utdecade (local utt)

	<b>Place</b>	dcterms:spatial	The geographical or jurisdictional scope of the resource. <i>Place</i> is the Utah geographic political jurisdiction that the publication or map is "about."	RA	<p>In supplying geographic place names or location information, the best practice is to consistently and explicitly use relevant controlled vocabularies. Values should be taken from the Utah place name (<i>utplace</i>) list maintained by the Utah State Library or the <i>Getty Thesaurus of Geographic Names</i> (TGN). In choosing a geographic place name, the most specific place name or location available should be applied. <i>Place</i> provides for faceted browsing by geographic jurisdiction. Geographic terms may also be repeated in <i>Subject</i> if desired.</p> <p>Though not generally recommended for this profile, the Dublin Core Metadata Initiative (DCMI) <i>Point</i> Encoding Scheme provides an alternate strategy for encoding a geographic location as "a point in space using its geographic coordinates," as does the DCMI <i>Box</i> Encoding Scheme for encoding a geographic location as "a region in space using its geographic limits." It is also worth mentioning that the Library of Congress Subject Headings (<i>LCSH</i>) (also available online as part of the Library of Congress Authorities. contains geographic place name headings.</p>	utplace (local utt) --- dcterms:TGN dcterms:LCSH dcterms:Point dcterms:Box
<b>rights</b>	<b>Rights</b>	dc:rights	Information about rights held in and over the resource; usually a statement of copyright.	RA	<p>Typically, a <i>Rights</i> element will contain a rights management statement for the resource (such as "Copyright © 2006 by State of Utah. All rights reserved; All materials in this publication are in the public domain and may be reproduced, reprinted, and/or redistributed as desired."), or a reference to a URL providing such information (such as <a href="http://www.utah.gov/disclaimer.html">http://www.utah.gov/disclaimer.html</a>). Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. The Copyright Act of 1976 specifically exempts works created by the federal government from copyright protection, continuing a provision from the previous copyright acts. Because the Act is a federal statute, it is silent on whether the works of state or local governmental agencies can be copyrighted. There are cases holding that works published by state or local governments are eligible for copyright protection. Thus, states are free to claim copyright in their documents if they so choose. Use separate <i>Rights</i> elements to enter multiple rights.</p>	None
<b>audience</b>	<b>Audience</b>	dcterms:audience	A specific community sector for whom the publication or resource is intended, targeted, or useful.	M	<p>This element provides for both English and Spanish language faceted browsing to find publications by the intended audience in <i>Utah Government Publications Online</i>. The audience is usually determined by the creator or publisher, but it can also be determined by a third-party. Examples of audiences could include Spanish-language speakers, seniors, kids, immigrants, and new Utahns. If a collection is intended or useful for</p>	utaudience (local utt) utaudinecees (local utt)

multiple audiences, a separate statement should be used for each audience. Terms must be selected from the English or Spanish language *Audience* controlled vocabulary maintained by the Utah State Library.

## Collaborative Digitization Program (CDP) Elements for Digitized Resources

---	<b>Contributing Institution</b>	No DCMI qualified name; use contributingInstitution	A consistent reference to the institutions or administrative units that contributed to the creation, management, description, or dissemination of the digital resource.	NR	Recommended for digitized resources. <i>Contributing Institution</i> is intended to aid in the management and preservation of metadata records in a shared environment by identifying the provenance of records and digital objects. Use a standard entry such as: "University of Utah. Dept./College/Library." Check existing records to ensure consistency and use separate elements if there are multiple contributing institutions.	None
<b>Date</b>	<b>Date Digital</b>	dc.date	The date associated with the digital creation or scanning of the resource.	NR	<p>The date an analog resource was scanned. For non-digitized digital resources, the date of creation is <i>dcterms:created</i>. In general, the date of the creation of the original analog resource is more relevant to the end-user than the date of scanning of the digital resource. However, it should be used for digitized sources so that the date can be aggregated using OAI-PMH into CDP and MWDL digital library collections.</p> <p>The contributing institution may approximate the date a resource was digitized. Dates should conform to the <i>W3C-DTF</i> scheme. Span dates for serials and ongoing publications should conform to <i>dcterms:Period</i>.</p> <p>Note: Date Digital is the CDP equivalent of the MODS qualifier <i>dateCaptured</i>, a sub-element of <i>mods:originInfo</i> and <i>mods:publicationInfo</i> in the MODS namespace. Because the DCMI Usage Board recommends using the element <i>dateCaptured</i>, a best practice of interoperability is to use both <i>Date Digital</i> and <i>dateCaptured</i>, if applicable.</p>	dcterms:W3CDTF dcterms:Period
---	<b>Digitization Specifications</b>	No DCMI qualified name; use digSpecs	Technical information about the digitization of the resource; the hardware, software and processes used (e.g., scanner model, scan resolution, creation software, color profiles, compression scheme, file size for master file, etc.)	NR	<p>This element is primarily intended for use at the local level. It is a free text field that is not indexed. No controlled vocabulary is used. This element is used to provide provenance preservation description information for digitized documents required of the OAI reference model. For examples, see NISO document Z39.87-2002, <i>Data Dictionary: Technical Metadata for Digital Still Images</i>.</p> <p>Note: Administrative or technical metadata, used to manage a digital collection, should not be exposed in OAI records. Consider carefully what information</p>	None

is most useful to a service provider or end user.

## University of Utah Institutional Repository Elements for Digitized Resources

---	<b>Scanning Technician</b>	No DCMI qualified name; use scanningTechnician	The personal name of the technician who digitized the resource.	NR	Free text field that is not indexed. No controlled vocabulary is used. It facilitates internal administrative functions and quality control.  Note: Administrative or technical metadata, used to manage a digital collection, should not be exposed in OAI records.	None
---	<b>Metadata Cataloger</b>	No DCMI qualified name; use metadataCataloger	The personal name of the cataloger who applied the metadata.	NR	Free text field that is not indexed. No controlled vocabulary is used. It facilitates internal administrative functions and quality control.  Note: Administrative or technical metadata, used to manage a digital collection, should not be exposed in OAI records.	None

### \* Obligation Key

- M = Mandatory
- O = Optional
- RA = Recommended, if applicable
- NR = Not recommended for the State of Utah metadata application profile

### Abbreviation Key

- Box = DCMI Box Encoding Scheme
- DCMI = Dublin Core Metadata Initiative
- gnis = U.S.G.S. Geographic Names Information System
- ISBN = International Standard Book Number
- ISSN = International Standard Serial Number
- lcnaf = Library of Congress Name Authority Files
- LCSH = Library of Congress Subject Headings
- liv = Legislative Indexing Vocabulary
- MeSH = Medical Subject Headings
- Period = DCMI Period Encoding Scheme
- TGN = The Getty Thesaurus of Geographic Names
- URI = Uniform Resource Identifier
- utt = State of Utah Taxonomy
- W3C-DTF = W3C Date and Time Formats Encoding Scheme